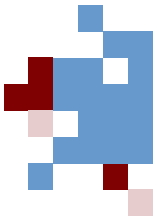
By: David H. Hutton, AICP

The Power of Composite:



Shaking Conventions With Conventional Zoning

A city council vote in Leander, Texas, in early September gave the city what could be the nation's first comprehensive composite zoning ordinance. Using a format resurrected from the earliest zoning codes in the U.S., composite zoning offers a flexible, simplified, and innovative method for integrating form-based standards into a traditional Euclidian framework. This method has the potential of creating compatible mixed-use neighborhoods even in a suburban setting.

Context

Leander, Texas is a burgeoning satellite city with about 20,000 residents northwest of Austin. The area was mainly rural when the city was incorporated in 1978. Today, it's a typical bedroom community, albeit a rapidly growing one. With growth comes the promise of new employment opportunities; shopping, dining and housing alternatives; and transportation options including a commuter rail line anchoring a diverse urban Transit Oriented Development (TOD).

At the same time there has been concern about potential negative growth impacts related to incompatible land uses. Some residents worried that the city's zoning ordinance was not up to the task of enabling healthy growth. Over the years, the issue threatened to divide the community.

Status

Like most zoning codes, Leander's ordinance included a compilation of use districts. As problems were encountered with land use incompatibilities, additional use districts were created to more finely define and limit uses. Ultimately this limited the marketability of non-residential property. Over time, overlay districts, special use permits and limited form standards were applied to improve the ability to contextualize zoning rules. With the added zoning layers the ordinance became more complicated, difficult to navigate and inconsistent.

When all else failed, and it is surprising how often this can happen, a Planned Unit Development (PUD) was employed to provide standards more appropriate to the context of the site. PUD's can be effective in addressing contextual issues, but can also be confusing for anyone trying to buy, develop, market, plan, inspect or get loans for real estate. Every PUD is different from every other PUD. To understand them you must research the language of the PUD ordinance itself. The process can last for months, resemble contract zoning, and, like a black hole, be impossible to escape from once you travel beyond its event horizon. With the addition of new staff not familiar with the standards and intent of the PUD's, they become even more difficult to administer. I consider the number of PUD's in a community to be a gauge of the ineffectiveness of their zoning ordinance. That said, a PUD can also be a valuable tool if used in moderation.

Conditional Use Permits are sometimes utilized to provide additional flexibility to a zoning ordinance and establish a process to review certain uses for compatibility within the context of their proposed location. Like a PUD, if used in moderation, they can be a valuable tool. However, they require an additional approval beyond the base zoning and have some of the same drawbacks as PUD's .

I have seen developers, neighbors, zoning administrators, city councils and zoning commissions alike complain about zoning ordinances. They are criticized as inflexible, too constraining, not constraining enough, too complicated, not able to address contextual issues, not able to protect property values, creating limits to economic development, etc. Weaknesses

in zoning ordinances often surface in anger and frustration during public hearings. Zoning debates can cause community divisions and can even erode faith in local political processes. We tend to dismiss many zoning debates as the result of inevitable conflicts in land use policy making, NIMBY-ism, animosity between property owners, misunderstandings, overly fatalistic viewpoints, resistance to change, normal growth pains, politics or whatever. There will always be debate in the zoning arena. But we should not let this fact deter us from analyzing the underlying causes of these debates and determining whether the inadequacies of our zoning ordinances are causing problems. As planners we should ask ourselves if we are providing our community with the best possible zoning tools. We may have to rethink our zoning conventions to better serve our community.

After being tasked with the responsibility of drafting a new zoning ordinance, we began by identifying the problems experienced with our old ordinance. We interviewed a variety of stakeholders. At first we heard the familiar story of developers wanting fewer regulations and neighborhood representatives wanting more regulations. And certainly there will always be some of that dynamic involved. But as we became familiar with their viewpoints we realized that developers also want standards to protect their property values and the image of the community, and neighborhood and community representatives want rules that create a favorable economic environment. Our focus shifted to commonly held beliefs that: our zoning ordinance was not flexible enough to adjust to market demands, it did not adequately define appropriate standards for different contextual conditions, and it did not provide the predictability necessary to make informed zoning decisions.

The lack of predictability caused some zoning applications for desirable uses to be "what if'd" to death. We have all heard it. Many of us have likely made these statements before. It goes something like this: "I know you are just making a re-zoning application for a retail center, but our zoning ordinance permits filling stations, car washes and auto sales lots in that district. 'What if' the land use should change in the future to one of those uses? I am not sure this district will be acceptable in that location with those potential uses."

Analysis

For the moment, let's ignore the fact that making an ordinance more flexible while also making it more predictable seems contradictory. Let's first look at the details.

The lack of flexibility in our old zoning ordinance was most often described in terms of use flexibility. For instance, the ordinance had seven commercial use districts, some of which were narrowly defined. This tended to limit the market in those districts. Even adding a drive-through service lane to a retail bakery could literally require a change to a more permissive use district. And yet requesting a change to a more permissive district would reduce predictability by adding additional permitted uses. In a controversial zoning decision, the City of Leander denied zoning for a donut shop proposing a drive-through service lane because other potential uses in that district were considered inappropriate for that location. Our zoning districts seemed both too broadly defined and too narrowly defined at the same time. And despite the inclusion of overlay districts, special permits, compatibility setbacks and masonry standards, the ordinance was particularly weak in creating contextually appropriate standards.

With zoning districts that are too broadly defined, we cannot adequately predict the result of zoning decisions because the range of permitted outcomes is too broad. The following figure depicts uses that are typically acceptable in a general commercial district.

CONVENTIONAL ZONING
LACK OF PREDICTABILITY
COMMERCIAL USES

Uses can range from an equipment rental yard with substantial outdoor storage of equipment, to a featureless strip retail center, to an office warehouse service center with metal siding, to a retail center with relatively high architectural standards and having low intensity site conditions.

The following figure depicts uses that are typically acceptable in a light industrial district.

CONVENTIONAL ZONING LACK OF PREDICTABILITY INDUSTRIAL USES

Uses can range from a metal sided mini-warehouse facility, to a warehouse/distribution center with outdoor storage, or a research and testing facility that looks like a Class A office building.

What value is a zoning ordinance if it can't be used to predict which of the above will occur within a given district? No wonder there are so many heated zoning discussions. No wonder so many zoning applications fail because they get "what if'd" to death. I expect any day to see a bumper sticker that says "Zoning Happens".

Problem Rooted in Structure of Zoning Districts

So how can we make zoning more predictable while increasing land use flexibility to improve marketability? How do we both narrow and broaden the scope of land use controls? How can we accommodate seemingly contradictory goals?

The problems we experience with zoning are largely the result of the structure of our zoning districts. We try to define "land use" with one-dimensional use districts. We have taken an early format for describing land use, which began with a basic differentiation between residential, commercial and industrial uses, and are still trying to utilize that format to deal with much greater differentiation of building functions as well as form features. We categorize all elements of land use, at least within the context of zoning, with one list ranging from least intense to most intense, and then we segment this single list into use districts.

SFR - Single Family Rural
SFE - Single Family Estate
SFS - Single Family Suburban
SFU - Single Family Urban
SFC - Single Family Compact
SFL - Single Family Limited
SFT - Single Family Townhouse
MH - Manufactured Home
TF - Two Family
MF - Multi-Family
LO - Local Office
LC - Local Commercial
GC - General Commercial
LI - Light Industrial
HI - Heavy Industrial

To make up for the lack of definition in this single list, we tack on additional overlay districts, conditional use permits, etc. to try to provide for contextual differentiation in the rules. The fact is we are trying to define too much with a single district component, and then we complicate the regulations with a "Band-Aid" approach. What we need is a fundamental change in the way we approach zoning.

Land use is not one dimensional. Land use includes at least three components. There is the building function (use) component - the type of activity that occurs within a building, such as a single family residence, multi-family, office, retail and manufacturing. There is a site component - the uses and features of the site such as building coverage, scale, entrance locations and disposition (setbacks or build-to ranges); parking; sidewalks; landscaping; lot layers; accessory structure size; frontage types; service areas; exterior lighting; signage; outdoor display and storage; rear lanes and alleys; public spaces; etc. And there is an architectural component - exterior building materials, roofing materials and standards, building height, amount of glazing, the type and number of architectural features, etc.

A typical zoning district comprised of just one component - a list of permitted uses - does not address the variety of site and architectural features. Simply put, there is a disconnect between zoning and land use. As planners, we should ask ourselves why our land use studies contain so much more information than our zoning districts. (For example, see "Land Based Classification Systems", Mark White, APA Interact 10-25-05.)

Solution: The Power of Composite

Now that we segmented the definition of land use to include use, site and architectural components, we should change the struc-

ture of our zoning districts. Rather than having zoning districts comprised of just one component (a list of use districts), our zoning districts should be comprised of three separate and independent zoning components describing use, site and architectural characteristics. One of each of these components can then be combined to create a "composite" zoning district (following figure).

USE	SITE	ARCH.
SFR	TYPE 1	TYPE A
SFE	TYPE 2	TYPE B
SFS	TYPE 3	TYPE C
SFU	TYPE 4	TYPE D
SFC	TYPE 5	
SFL		
SFT		
MH		
TF		
MF		
LO		
LC		
GC		
LI		
HI		

(The reader should not confuse a composite zoning ordinance for a single jurisdiction with a composite zoning map prepared for multiple jurisdictions.)

Like a restaurant that allows us to choose our entrée, soup and salad separately, "composite" zoning allows us to choose our use, site and architectural components separately. This enables us to independently address the three fundamental components of land use within the structure of the base zoning district so that contextual appropriateness can be determined for each component. This greatly increases the predictability of zoning decisions.

Composite zoning also enables us to reduce the number of use components because they no longer have to distinguish between a variety of site and architectural conditions. For instance, how many use districts are created to address site conditions? Uses such as vehicle repair, vehicle sales, contractor storage yards, heavy equipment rental, outdoor fuel sales, outdoor entertainment venues, lumber yards, car wash facilities and uses requiring large scale buildings and parking lots have features that are site intensive. These features can be addressed with site components.

Some cities have separate districts to describe differing architectural conditions, such as whether metal siding is permitted, if masonry is required or if certain architectural features are required. Creating separate site and architectural components to address these issues allows us to decrease the number of use components and broaden use flexibility within each district while providing greater predictability with the form components.

Form standards have a major influence on whether a development is compatible with its adjacent surroundings. By creating site and architectural components to be combined with use components, an appropriate emphasis is placed on form standards. And with a variety of form components to select from, form standards can be varied depending on what is appropriate to the context of the site. This provides planners and decision makers with a powerful tool to ensure that appropriate form standards will create the desired visual and physical presence for a particular location.

Why settle for the lowest common denominator of site and architectural standards to be utilized with each use component? Just because a non-residential use is appropriate for a location doesn't necessarily mean that metal walls, featureless architecture or outdoor storage is appropriate for that location. The ability to determine form standards appropriate to the context of the site helps to protect neighborhoods, preserves land values and encourages investment in the community.

Facilitates a Zoning Consensus

With one dimensional single component zoning districts, a zoning consensus can be difficult to achieve. The full range of site and architectural conditions permitted in any given use district may not be acceptable for many locations even if the applicant proposes an acceptable use. Site and architectural components can be combined with use components in composite zoning to better define form standards or even narrow the potential use list and "weed out" unacceptable site uses or architectural standards.

One such example is creating light industrial districts for clean manufacturers with restrictive site and architectural components that permit these land uses to be located successfully in high profile locations or near neighborhoods. A microelectronics testing and research facility is typically considered a light industrial use. But an existing industrial district may not provide the best location for this use. If the facility occupies a building with high architectural standards on a site with no outdoor storage or other potentially intrusive site characteristics, it would likely be welcomed in many locations within the community. This would probably not be the case for an industrial district that permits low architectural standards (such as corrugated metal exterior siding) and intensive site conditions.

By combining a light industrial use component with site and architectural components that require high form standards, a composite district can be created to accommodate the desired use without the fear of enabling de-

velopment of the site to more intensive conditions. This facilitates the location of needed economic development projects in closer proximity to more restricted districts allowing employers to locate in a high profile location or closer to their employees.

Or in the case of the donut shop, a less permissive use district may be utilized in combination with a more permissive site or architectural component. This avoids a decision to risk more intensive uses. Since use, site and architectural components can be combined independently and with such variety, composite zoning provides more options for development standards. This means there is less likelihood that a use, site or architectural standard is too permissive or not permissive enough and results in better definition of zoning standards with less reliance on PUD's or Conditional Use Permits to provide a successful combination of standards for a particular site.

This feature of being able to customize the zoning district makes composite zoning popular with developers, neighborhood representatives and decision makers alike. For the neighborhood, composite zoning offers the flexibility of being able to combine non-residential use components with higher quality site and architectural components. For developers, composite zoning offers an opportunity to fine tune their applications so they don't have to request more intensive zoning than they absolutely need, avoiding the "what if" arguments. Decision makers are assured that their decisions will result in the desired outcome rather than an unpredictable surprise.

Like Creating a PUD From Component Parts

Composite zoning is like creating a PUD from component parts. These parts are clearly defined, require no new drafting of standards, and they are limited in number so they can be easily integrated into the vocabulary of planners, developers, decision makers, building officials and inspectors. There is no need to research a particular PUD ordinance to understand the standards. And yet, like a PUD, the options available by combining different components are so numerous they can be applied to fit the special circumstances of the site and to meet the particular needs of a developer. In Leander, the number of possible combinations of the three components is well over one hundred. And yet with the number of use components reduced, the total number of individual components is not increased beyond the original number of use districts.

By addressing architectural and site standards in component options, we have the opportunity to create performance standards that vary setbacks and buffering depending on the permissiveness of the component. If a site component is utilized that permits substantial outdoor storage or other intensive site uses, greater setbacks for site improvements and additional landscaping can be required to provide better buffering from adjacent uses. A similar approach can be taken with architectural components that permit metal walls and fewer architectural features. This creates an incentive to zone and develop to higher standards so that lesser setbacks can be utilized.

Enables Integration of Uses and Better Land Use Transitions

Uses are mixed in a more finely grained pattern in traditional development (New Urbanism) than is the more contemporary standard. With the ability to vary form standards to help ensure compatibility, composite zoning offers the potential for integrating different uses into development patterns which promote walking, biking, and community life in general. After reviewing our composite zoning ordinance, Milosav Cekic, AIA, notes the following: "This can result in being better able to avoid compartmentalization into single-use neighborhoods physically separated from each other and accessible only by car. This allows residents to satisfy their daily needs within walking distance." It also reduces the number of car trips, pollution, fuel consumption, trip length and time lost in travel. He continues, "The integration of uses, if done thoughtfully, encourages human interaction and promotes more authentic and real neighborhoods."

Even with contemporary patterns of land use, different land uses must ultimately be neighbors. Composite zoning enables better land use transitions.

The "composite" approach to creating zoning districts utilizes a familiar "Euclidian" format to integrate form standards with uses. Land use components and the flexibility to mix these components create an effective framework for traditional standards, contemporary standards, or any other standards that are desired by the community. The components only need to be defined and calibrated to reflect community standards, development practices and the Comprehensive Plan.

Empowers Comprehensive Plan

Since composite zoning is a more effective planning tool, the Comprehensive Plan can be a more effective plan. The land use plan can now address the form features of land use within a geographic context because we have a zoning tool that can geographically differentiate between these

features. Like art, the tools we use affect the works we create. The form components of composite zoning allow the vision of the community to literally be envisioned and then implemented.

Composite Zoning Addresses Goals

Composite zoning addresses the goals identified by our stakeholders. It offers greater use flexibility by reducing the number of use components and creating a broader field of uses within each district. It provides more predictability for development standards by integrating form components. And it enables contextually appropriate zoning by incorporating a format whereby both form standards and uses can be varied. This is accomplished by a fundamental change in the structure of our zoning districts that allows us to better define land use elements and to independently select and combine various component options defining these elements.

To illustrate the predictability of composite zoning, each of the uses described in the previous figures have a different composite zoning district designation that differentiate between the variety of site and architectural conditions (see figure below).

COMPOSITE ZONING PREDICTABILITY

COMMERCIAL USES

INDUSTRIAL USES

History and Legal Footing of Composite Zoning

Composite zoning is not a new construct. The original Village of Euclid zoning ordinance (as in *Euclid v. Ambler*) included six use districts, three height districts and four area districts. A tract of land would be zoned with one of each of these three components creating composite zoning districts. The Euclid ordinance was tested and found valid in a 1926 Supreme Court decision that established the constitutional footing for zoning in this country. Even under conservative Texas laws, our City attorney felt comfortable with this zoning format.

Leander Components

In Leander, we have a separate TOD code, so our "Composite Zoning Ordinance" was designed to primarily accommodate contemporary forms of development. (I see the next step in the evolution of composite zoning as creating more component options for traditional standards.)

We started by reducing eleven non-residential use districts to five components. We then created five site components. A Type 1 site component is combined with non-residential use components to enable residential compatibility. Type 1 prohibits certain site activities such as drive-through service lanes, outdoor fuel sales, outdoor display and storage, and major outdoor entertainment venues; it limits the size and scale of buildings; requires additional landscaping; provides pedestrian scale signage and lighting; limits the amount of parking in front of structures; requires sculpted earthen berms for stormwater detention ponds; and includes multi-family design standards to improve neighborhood compatibility. The Type 1 multi-family standards include requirements for garages and a common

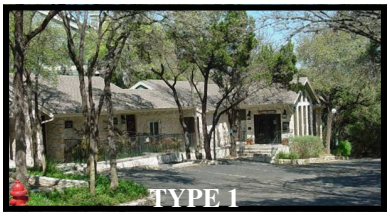
front door entry with internal hallways; a prohibition against parking bays, aisles, garages and driveways in front of the buildings; stricter limits for building size and height; a requirement that every building face a public street or front yard; a restriction against garages facing the front; a requirement that parking bays be no wider than two parking modules; and a requirement that each building be designed to appear as one large single-family home.

The site components proceed with greater intensity of site uses, standards and activities. For example, Type 2 permits moderate scale buildings and drive-through service lanes. Limited amounts of outdoor display and storage are permitted in Type 3 along with larger primary and accessory buildings, outdoor fuel sales, car wash facilities and overhead commercial service doors. Type 4 additionally permits maximum outdoor display, a moderate amount of outdoor storage, larger accessory buildings, major outdoor entertainment venues and outdoor animal boarding. Type 5 additionally permits maximum outdoor storage and accessory buildings.

Single family use components may only be combined with Type 1-3 site components and they primarily determine whether accessory dwellings are permitted, whether rear garage access is required, whether street facing garages may extend closer to the street than the dwelling, and what size accessory structures are permitted.

We created four architectural components beginning with Type A requiring mostly masonry exterior walls and the greatest number of exterior architectural features. Type B requires a moderately high number of architectural features and less masonry with the remainder comprised of cementious-fiber planking. Type C requires a moderate number of architectural features and permits tilt wall construction, factory tinted split faced concrete masonry unit and siding predominantly comprised of cementious-fiber planking. Type D further permits metal siding except for street facing walls which are mostly masonry and requires fewer architectural features.

SITE COMPONENTS



Building height is more permissive with Type A and reduces with the less restrictive components ensuring that higher quality materials are utilized with tall buildings. We also have building height compatibility standards for non-residential uses adjacent to residential uses.

Component Applications

Intent statements contained in all components describe typical applications for the components. For instance, a Type A architectural component is utilized for residential lots adjacent to a major thoroughfare or to raise

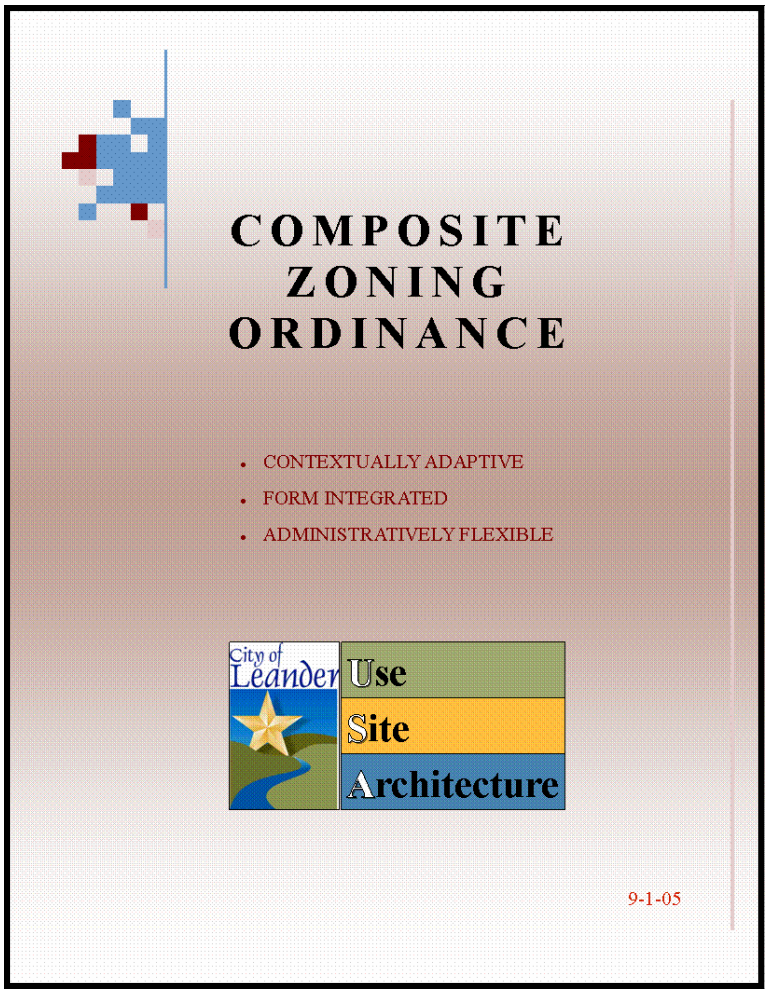
ARCHITECTURAL COMPONENTS

architectural standards for townhouse or garden home development near larger lot residential development. Type B is utilized for the remaining single family lots. A and B architectural components are combined with non-residential development near residential neighborhoods or in high profile locations. Type C is usually applied to major retail centers and Type D is typically applied only to industrial parks or heavy commercial uses.

Type 1-3 site components are utilized in most retail and office settings (with Type 1 primarily being utilized in and around neighborhoods), while Type 4 and 5 are typically utilized in industrial parks, not in high profile locations. Type 4 is also utilized when significant outdoor display of equipment or materials for rent or sale is required (e.g. vehicles, manufactured homes, portable buildings, farm and ranch equipment, landscape materials).

After the Vote

The morning after the city council approved the composite zoning ordinance I am greeted by boxes of donuts. The significance of this has not sunk in before Robin Garcia, Athletic Coordinator, announces "Maybe now we can have a donut shop."



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